

# Accelerator & NuMI Upgrades Update

Paul Derwent

16 Apr 2013



## Remaining Critical Path Hardware

- Remaining kickers are ready for installation
  - RR Extraction kicker installation today
- RF cavities:
  - First cavity in the tunnel, on the stand yesterday
  - 2<sup>nd</sup> at the end of the month
- Beam Pipe & Vacuum components:
  - Coming in, machine shop work still ongoing
  - Injection line installation moving along
    - Transfer lines first (MI8 and RR8), then Recycler Ring
    - Slowed down with some resource issues
      - Crew leader on FMLA (father in hospice)
      - Some other changes in MSD techs (lead vacuum tech leaving lab May 1, LIGO)



# MI/RR Shutdown 2012

#### RR 53 MHz Cavity Installation

#### **Recycler RF Status**

- 53MHz cavity stands have been assembled.
- Waiting for RF testing to finish on #2 cavity so alignment can reference it prior to installation
- Cavity #3 cooling has been modified
  - Relocated to the tunnel
  - Installation Monday





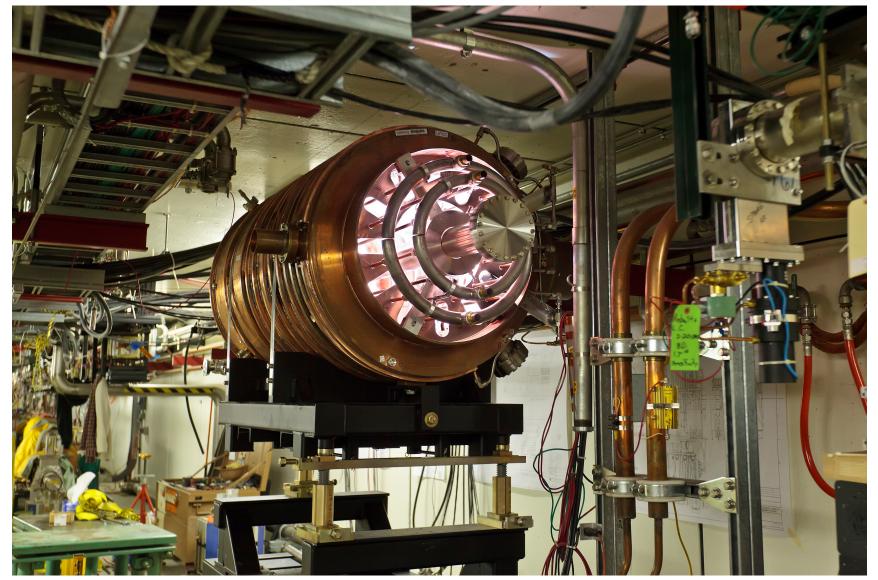
## RF Cavity Installation



John Cornele (PPD), Ron LeBeau (AD), Bill Dymond (AD), Christine Ader(AD), Tom Olzsanowski (PPD), Rob Reilly (AD)



## RF Cavity Installation

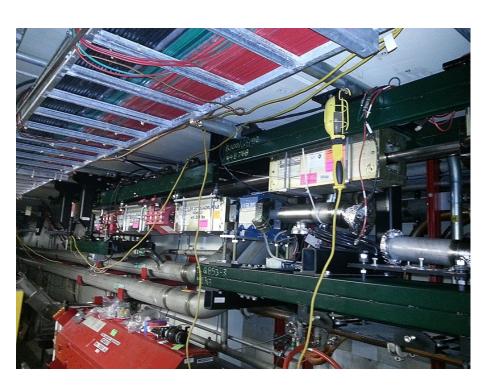


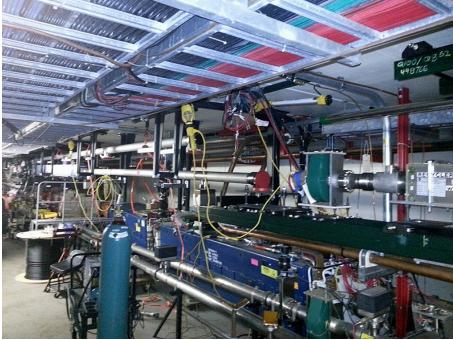


# MI/RR Shutdown 2013

#### Injection:

- Continue making progress with re-assembly of the Recycler-8 line vacuum from 848 to RR ring
- Short handed for several weeks





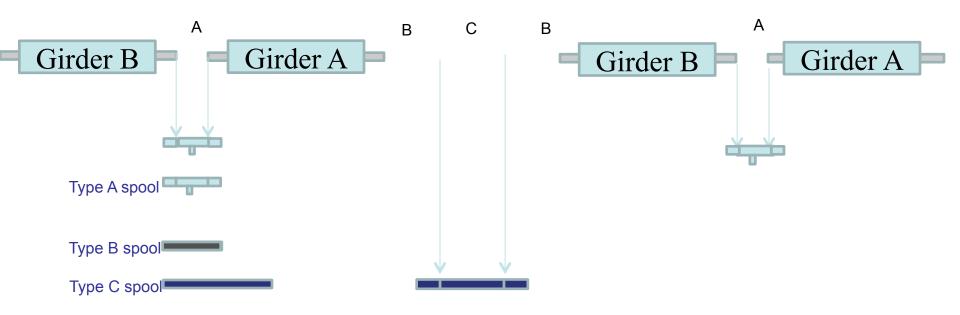
# RR30 and Extraction Line Girders





#### MI/RR Shutdown 2012

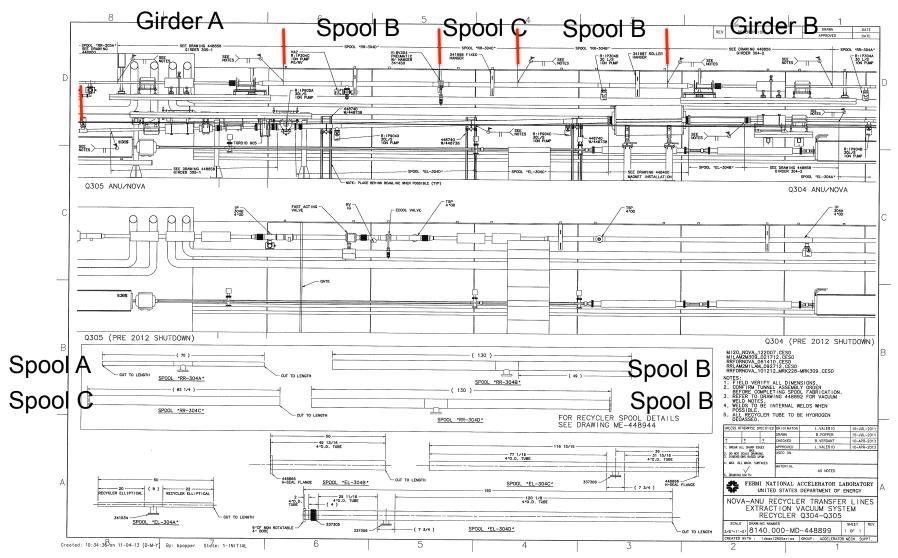
• RR30 Vacuum Installation Scheme



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## Technical drawing of the same



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#### NuMI/NoVA Target

TA-01 moved to MI65 and lowered down the shaft waited for a good weather day last week!

In the work cell, module connection and installation this week





#### LCW progress

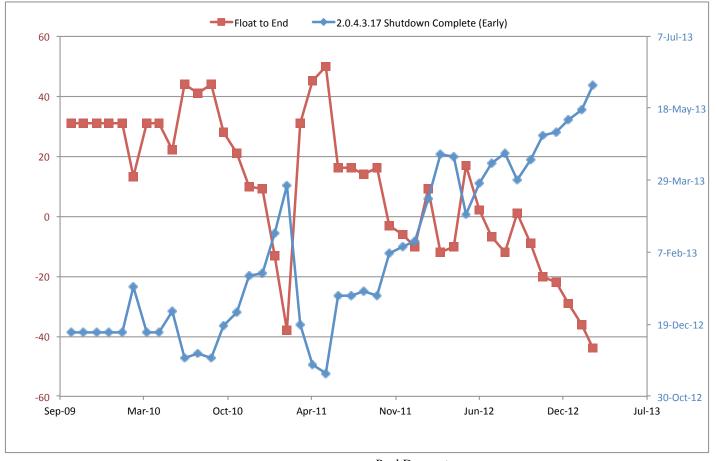
- April 1st: MI LCW turn on
  - Process is going well and will continue as planned
- April 8<sup>th</sup> We started to fill the MI-62 system for NuMI
  - Once filled the system will need some level of balancing
  - Enables pulse testing of the horns and filling all the skids
- Week of April 15<sup>th</sup> we planned to fill and hydro test the MI-8 system
  - Started early. System filled on Thursday April 11<sup>th</sup>
- 4 milestones in LCW system testing, should meet all in April

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#### Shutdown float

- OpenPlan end of shutdown: June 3<sup>rd</sup>
  - RR30 installation -> vacuum installation in this area  $-3^{rd}$  week in May?
  - RF Cavity -> finishing all the power/vacuum/water connections

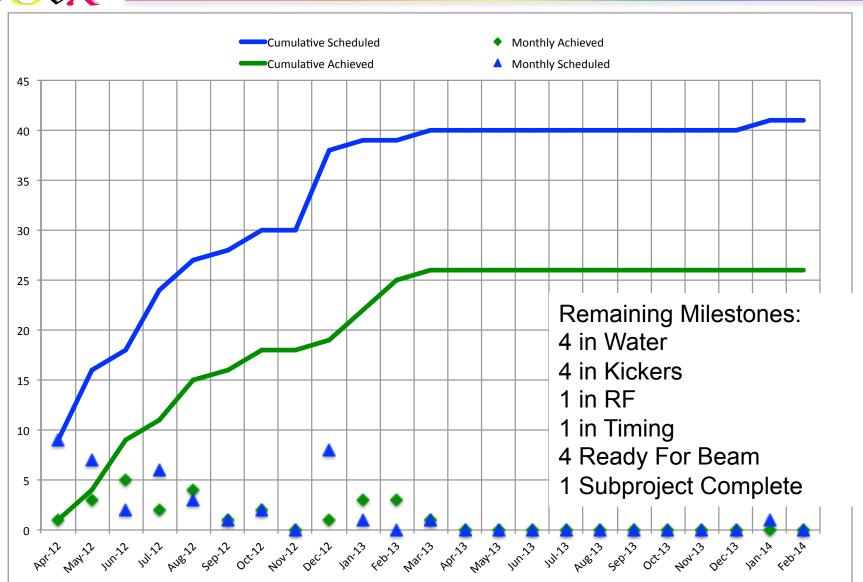


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### Remaining milestones





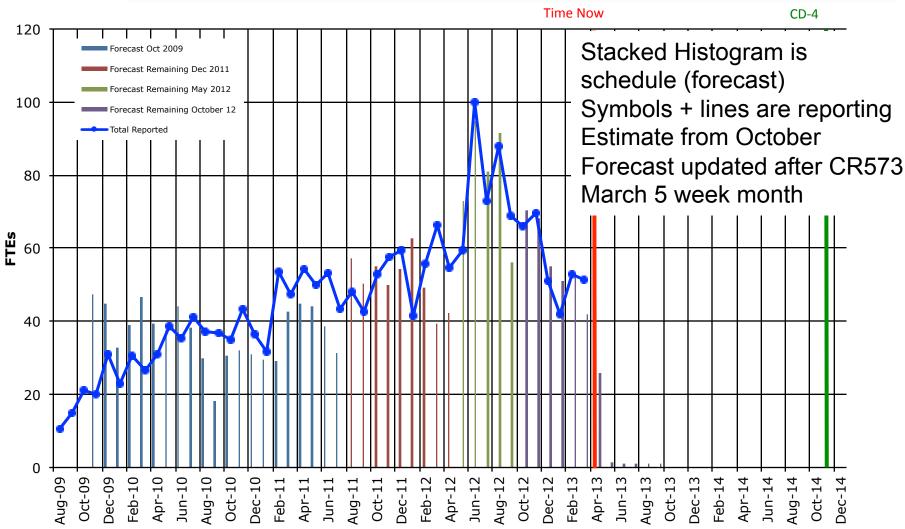
#### Summary

- Shutdown work progressing
  - 1<sup>st</sup> RF Cavity on the stand in the tunnel
  - 2 RR Extraction kickers installed today (last kicker magnet installation)
  - Vacuum work progressing

- Looking to late May for all project tunnel work complete
  - additional time to complete the other tunnel work



#### **ANU Resource Requirements**



FTE := 147.3 hours/month

Month



#### Shorter term trending?

